

49. (Amended twice) A vector comprising the isolated and purified nucleic acid molecule of any of claims 46, 47, or 48.

F1
50. (Amended twice) A host cell comprising the isolated and purified nucleic acid molecule of any of claims 46, 47, or 48.

52. (Amended three times) An isolated and purified nucleic acid molecule which hybridizes under conditions of hybridization in 50% formamide at 42°C and washing in 0.1 X SSC at 65°C to a nucleic acid molecule consisting of the nucleotide sequence of SEQ ID NO:2.

F2
53. (Amended twice) An isolated and purified nucleic acid molecule comprising a nucleotide sequence encoding a polypeptide comprising the amino acid sequence of SEQ ID NO:6.

54. (Amended twice) An isolated and purified nucleic acid molecule comprising the nucleotide sequence of SEQ ID NO: 2.

55. (Amended twice) A vector comprising the isolated and purified nucleic acid molecule of any of claims 52, 53, or 54.

56. (Amended twice) A host cell comprising the isolated and purified nucleic acid molecule of any of claims 52, 53, or 54.

58. (Amended three times) An isolated and purified nucleic acid molecule which hybridizes under conditions of hybridization in 50% formamide at 42°C and washing in 0.1 X SSC at 65°C to a nucleic acid molecule consisting of the nucleotide sequence of SEQ ID NO:3.

F3
59. (Amended twice) An isolated and purified nucleic acid molecule comprising a nucleotide sequence encoding a polypeptide comprising the amino acid sequence of SEQ ID NO:7.

60. (Amended twice) [substantially pure] An isolated and purified nucleic acid molecule comprising the nucleotide sequence of SEQ ID NO: 3.

F³ 61. (Amended twice) A vector comprising the isolated and purified nucleic acid molecule of any of claims 58, 59, or 60.

62. (Amended twice) A host cell comprising the isolated and purified nucleic acid molecule of any of claims 58, 59, or 60.

64. (Amended three times) An isolated and purified nucleic acid molecule which hybridizes under conditions of hybridization in 50% formamide at 42°C and washing in 0.1 X SSC at 65°C to a nucleic acid molecule consisting of the nucleotide sequence of SEQ ID NO:4.

65. (Amended twice) An isolated and purified nucleic acid molecule comprising a nucleotide sequence encoding a polypeptide comprising the amino acid sequence of SEQ ID NO:8.

F⁴ 66. (Amended twice) The isolated and purified nucleic acid molecule of claim 65 comprising the nucleotide sequence of SEQ ID NO:4.

67. (Amended twice) A vector comprising the isolated and purified nucleic acid molecule of any of claims 64, 65, or 66.

68. (Amended twice) A host cell comprising the isolated and purified nucleic acid molecule of any of claims 64, 65, or 66.

F⁵ 70. (Amended twice) An isolated and purified nucleic acid molecule which hybridizes under conditions of hybridization in 50% formamide at 42°C and washing in 0.1 X SSC at 65°C to a nucleic acid molecule consisting of the nucleotide sequence of SEQ ID NO:13.

71. (Amended twice) An isolated and purified nucleic acid molecule comprising a nucleotide sequence encoding a polypeptide comprising the amino acid sequence of SEQ ID NO:14.

F⁵ 72. (Amended twice) An isolated and purified nucleic acid molecule comprising the nucleotide sequence of SEQ ID NO: 13.

73. (Amended twice) A vector comprising the isolated and purified nucleic acid molecule of any of claims 70, 71, or 72.

74. (Amended twice) A host cell comprising the isolated and purified nucleic acid molecule of any of claims 70, 71, or 72.

76. (Amended twice) An isolated and purified nucleic acid molecule which hybridizes under conditions of hybridization in 50% formamide at 42°C and washing in 0.1 X SSC at 65°C to a nucleic acid molecule consisting of the nucleotide sequence of SEQ ID NO:10.

F⁶ 77. (Amended three times) An isolated and purified nucleic acid molecule comprising a nucleotide sequence encoding a polypeptide comprising the amino acid sequence of SEQ ID NO: 12.

78. (Amended twice) The isolated and purified nucleic acid molecule of claim 77 comprising the nucleotide sequence of SEQ ID NO: 10.

79. (Amended twice) A vector comprising the isolated and purified nucleic acid molecule of any of claims 76, 77, or 78.

80. (Amended twice) A host cell comprising the isolated and purified nucleic acid molecule of any of claims 76, 77, or 78.

82. (Amended three times) An isolated and purified nucleic acid molecule which hybridizes under conditions of hybridization in 50% formamide at 42°C and washing in 0.1 X SSC at 65°C to a nucleic acid molecule consisting of the nucleotide sequence of SEQ ID NO:15.

83. (Amended twice) An isolated and purified nucleic acid molecule comprising the nucleotide sequence of SEQ ID NO: 15.

F⁷ 84. (Amended twice) A vector comprising the isolated and purified nucleic acid molecule of any of claims 82 or 83.

85. (Amended twice) A host cell comprising the isolated and purified nucleic acid molecule of any of claims 82 or 83.

87. (Amended) An isolated and purified nucleic acid consisting essentially of SEQ ID NO:1.

F⁸ 88. (Amended) The isolated and purified nucleic acid molecule of claim 52 or claim 53, wherein the polypeptide encoded by the nucleic acid molecule, can induce bacterial-mediated endocytosis (BME) when introduced into a bacterium that lacks a wild type SspC polypeptide.

89. (Amended) The isolated and purified nucleic acid molecule of claim 58 or claim 59, wherein the polypeptide encoded by the nucleic acid molecule can induce bacterial-mediated endocytosis (BME) when introduced into a bacterium that lacks a wild type SspD polypeptide.

90. (Amended) An isolated and purified nucleic acid molecule consisting essentially of SEQ ID NO:4.

91. (Amended) The isolated and purified nucleic acid molecule of claim 64 or 65, wherein the polypeptide encoded by the nucleic acid molecule can induce bacterial-mediated endocytosis (BME) [when introduced into a bacterium that lacks a wild type SspA polypeptide.

92. (Amended) An isolated and purified nucleic acid molecule consisting essentially of SEQ ID NO:10.

F⁸ 93. (Amended) An isolated and purified nucleic acid molecule consisting essentially of SEQ ID NO:2

94. (Amended) An isolated and purified nucleic acid molecule consisting essentially of SEQ ID NO:3.

95. (Amended) An isolated and purified nucleic acid molecule consisting essentially of SEQ ID NO:13. --
